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AMSAT NEWS SERVICE
ANS-244

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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ANS-244 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 244.01
   From AMSAT HQ SILVER SPRING, MD.
August 31, 2013
To All RADIO AMATEURS
BID: $ANS-244.01

AMSAT-NA Board of Directors Ballots Due By September 15th

A reminder that all members in good standing should have received their ballots. In order for your ballott to be counted, it will need to be RECEIVED at the AMSAT office by September 15th.

This year we have 8 candidates for 4 voting Board members and 2 non-voting Alternates. Your vote is especially important this year in selecting those who will help guide AMSAT-NA. If you have not submitted your ballot, please review the candidate biography and position statements you received, as well as the Minutes of the Board Meeting published in the May/June issue of the AMSAT Journal. Then make your voice heard by voting.

[ANS thanks the AMSAT Office for the above information]

FUNcube-1 Launch Date Announced

AMSAT-UK and AMSAT-NL are delighted to be able to announce that they have been advised that the launch date for FUNcube-1 is now expected to be November 21, 2013. This date is still subject to final approval by the authorities.

The FUNcube project started back in 2009 so it is a great relief that we now have a confirmed date for lift off.

FUNcube-1 will lift off from the Yasny launch base located in the Orenburg Region, Russia on a Dnepr Launch Vehicle that will insert multiple satellites into a 600 km sun-synchronous orbit.

FUNcube-1 is a 1U CubeSat that will provide a signal directly from a satellite in space to the classroom, and can easily be received by schools and colleges.
The target audience is students at both primary and secondary levels. The information will be displayed in an attractive format and provide stimulation and encouragement for students to become interested in all STEM (Science Technology Engineering & Maths) subjects in an unique way. In addition the spacecraft is also carrying a 435/145 MHz transponder for radio amateurs to use for communication using SSB or CW.

The spacecraft itself has now been completed and the last external panel was finally screwed and glued in place on Friday, August 30 at the facilities of ISIS BV in Delft. FUNcube-1 will be subjected to some final testing and battery charging on Tuesday when it will also be set into its pre-launch configuration.
It will then be placed into its ISIPOD on Wednesday ready for transport to the launch site.

Communication subsystem:
• 400 mW Inverting linear transponder for SSB and CW
- Uplink 435.150 – 435.130 MHz
- Downlink 145.950 – 145.970 MHz
• 400 mW BPSK Telemetry 145.935 MHz

More information about how to receive the signals from FUNcube-1 will be made available over the forthcoming weeks at the www.funcube.org.uk website.

A recent presentation about the FUNcube project by Graham Shirville G3VZV and Wouter Weggelaar PA3WEG can be viewed online at http://www.batc.tv/streams/amsat1311 or downloaded from http://www.batc.tv/vod/Funcube1.flv

FUNcube-1 http://amsat-uk.org/funcube/funcube-cubesat/

FUNcube Yahoo Group http://amsat-uk.org/funcube/yahoo-group/

FUNcube website http://www.funcube.org.uk/

Some of the other satellites that may be on the same Dnepr launch vehicle are
listed at http://amsat-uk.org/2013/08/22/dnepr-cubesat-launch/

AMSAT-UK on Facebook https://www.facebook.com/pages/AMSAT-UK/208113275898396
AMSAT-UK on Twitter https://twitter.com/AMSAT_UK

[ANS thanks AMSAT-UK and AMSAT-NL, for the above article]

A Ham Radio AX.25 Open Source Soundcard Modem

AX.25 packet radio is currently the most popular data protocol for use in CubeSats.

Radio amateur Alejandro Santos LU4EXT is developing extmodem, an open source APRS compatible AX.25 packet radio modem.

It is currently capable of both sending and receive packets. The main feature
of the software is that it is currently running three different demodulators in
parallel, increasing the quality of reception. The first modem is Thomas Sailer
HB9JNX / AE4WA‘s multimon, the other two are described by Sivan Toledo 4X6IZ in
an article in the July/August 2012 issue of QEX.

Download extmodem for Windows from
http://extradio.sourceforge.net/extmodem.html

QEX article – A High-Performance Sound-Card AX.25 Modem
http://www.tau.ac.il/~stoledo/Bib/Pubs/QEX-JulAug-2012.pdf

APRS destination address for ham radio satellites
http://amsat-uk.org/2013/08/23/aprs-destination-address-for-ham-radio-satellites/

LU4EXT on Twitter https://twitter.com/alejolp

[ANS thanks AMSAT-UK, for the above article]

Ham Radio Satellites at Tokyo Ham Fair

The JARL Ham Fair 2013 was held at Tokyo Big Sight, Ariake, Tokyo on August 24-
25. JAMSAT and several amateur radio satellite projects were represented.

The University of Tsukuba CubeSat ITF-1 YUI “Binding” support project was there. The formal name ITF-1 comes from the initial letter of the university slogan “Imagine The Future”. The satellite also has a popular name YUI which
means bond or binding in Japanese, it came from the project’s concept, “Creating the Worldwide Human Community”.

The ITF-1 satellite beacon on 437.525 MHz will send telemetry by a Morse Code
audio tone on an FM transmitter running 300 milliwats output. It should be possible to receive it using simple equipment such as a handheld transceiver or
scanner.

According to the ITF-1 website the “Binding” support project is organized by the student volunteers to support the construction of a consolidated network and expand public relation activities with the aim of encouraging many reception reports when the satellite is launched. ITF-1 will fly with the primary payload the Global Precipitation Measurement Dual-Frequency Precipitation Radar GPM-DPR satellite in 2014.

The ARTSAT stand featured the Invader CubeSat which is being developed by students at Tama Art University. The IARU has coordinated 437.325 MHz and 437.200 MHz for Invader which aims to have a camera for Earth imaging and a Digi-Talker, to transmit voice data using FM. Invader will be on the same launch as ITF-1.

Also at the fair was the SPROUT project. This nano-satellite, built by students from Nihon University, is 20 x 20 x 22 cm with a mass of 6.7 kg. It plans to launch with the L-band (1236.5 MHz/1257.5 MHz/1278.5 MHz) Synthetic Aperture Radar (SAR) satellite ALOS-2 in December, 2013.

SPROUT will have a digi-talker and will transmit, using Slow Scan TV (SSTV) and FM packet, pictures of the Earth taken by an on-board camera. It is believed that radio amateurs will be able to make use of the digipeater and possibly even command when pictures are taken.

ITF-1 project in Google English http://tinyurl.com/ITF-1-Yui-Binding-Project
Imagine The Future http://amsat-uk.org/2012/01/19/itf1-cubesat-imagine-the-future/

ARTSAT project in Google English http://tinyurl.com/ARTSAT
A student art satellite http://amsat-uk.org/2012/04/12/invader-cubesat-a-student-art-satellite/

SPROUT project in Google English http://tinyurl.com/Sprout-Satellite
SSTV satellite http://amsat-uk.org/2012/08/24/sprout-amateur-radio-sstv-satellite-to-launch-in-2013/

JARL Ham Fair 2013 in Google English http://tinyurl.com/JARL-Ham-Fair-2013

Reports on previous JARL Ham Fairs
http://www.jarl.or.jp/English/4_Library/A-4-6_ham-fair/ham-fair.htm

[ANS thanks AMSAT-UK, for the above information]

SpaceUp India 2012 Videos Now Posted

FSpace F-1 Amateur Radio CubeSatDhruva Space have released several videos recorded at the SpaceUp India event held in December 2012.

Among the presentations are those from
• F1 CubeSat from Vietnam, Thu Trong Vu XV9AA

• Hackerspace Global Grid, Uni Stuttgart
• Amateur Radio,Suri VU2MY

Other presentations from the event can be seen at
http://www.youtube.com/user/DhruvaSpace

SpaceUp India 2013 takes place December 6-7 in Manit, Bhopal
http://spaceupindia.org/

Facebook https://www.facebook.com/pages/SpaceUp-India/479467792071870

SpaceUp http://spaceup.org/

[ANS thanks AMSAT-UK, for the above information]

CAMSAT (AMSAT China) to host "a big DX party"

The "425 DX NEWS" reports that CAMSAT (AMSAT China) will
hold "a big DX party" from the outskirts of the city of Dunhuang in
northwestern China (Zone 23, WW Loc. NM79aw) between October 19-28th.
Alan, BA1DU, and a very large group of operators coming from all over
the country will be active with four well equipped stations: one for 2
and 6 meters, one for 70 centimeters and two for 160-10 meters.
Meteor Scatter and EME activity will be emphasized (this will include
participation in the ARRL EME Contest), as well activity on the low
bands. Special callsign BJ9TA will be used for operating above 50 MHz
and on the low bands, while BY9GA/9 will be used for the other bands
and for participation in the CQ WW SSB Contest. QSL via BA1DU.

[ANS thanks the August 26, 2013 Ohio/Penn DX Bulletin No.1125 for the above
link]

ARISS News

An International Space Station school contact has been planned with
participants at Amicale Space Camp organized by Sterrenlab for children
of the
European Patent Office/NL, Leiden, The Netherlands (Summer Space Camp,
Noordwijk, Netherlandson 30 Aug. The event is scheduled to begin at
approximately 12:11 UTC.

The duration of the contact is approximately 9 minutes and 30 seconds. The
contact will be direct between OR4ISS and PA3GUO. The contact should be
audible
over Italy. Interested parties are invited to listen in on the 145.80 MHz
downlink. The contact is expected to be conducted in English.

Sterrenlab is a small company in the field of science communication and
education, specialized in the organization of international science and
space
camps for children and teenagers.

The European Patent Office is a European organization with several sites in
Europe.

Participants will ask as many of the following questions as time allows:

1. Where do you come from?
2. Do you think aliens exist?
3. Can you see the Netherlands from the Space Station? And your house?
4. Do you have animals on board the International Space Station?
5. Are you homesick?
6. Do you have children?
7. Did you participate to survival camps during your astronaut training?
8. Would you prefer going to the Moon, to Mars or to an asteroid?
9. What languages do you speak?
10. What was your favorite subject at school?
11. Do you think the space agencies will soon detect an exoplanet with alien forms of life?
12. Do you have chocolate on the Space Station?
13. Did you have many friends when you were a child?
14. How is called the rocket you flew with?
15. Do you ever have issues with your crew mates?
16. If you would meet an alien, what would you tell him?
17. When are you coming back to Earth?
18. What's your favorite sport?

An International Space Station school contact has been planned with participants at Gwalior Glory High School, Gwalior, Madhya Pradesh, India on 31 Aug. The event is scheduled to begin at approximately 11:22 UTC. The duration of the contact is approximately 9 minutes and 30 seconds. The contact will be a telebridge between IR0ISS and IK1SLD. The contact should be audible over Italy and adjacent areas. Interested parties are invited to listen in on the 145.80 MHz downlink. The contact is expected to be conducted in English.

Gwalior Glory High School was established in Gwalior in the year 1991. Affiliated to the Central Board of Secondary Education, New Delhi, it has been running successfully over the years and has grown since inception from

primary
to a full fledged senior secondary school. Its unique curriculum, zest, zeal and an onward driving force have made it possible to attain the highest levels
of excellence.

Sprawled over a lush green area of 24 Bighas, the school is imaginatively designed and aesthetically constructed. The school campus is complete in itself, being well equipped with ultra modern facilities to cater to the holistic development of the child.

The school encompasses a wide area in serving the academic and co curricular interests of boys and girls from Playgroup to Class Twelve in an amiable, conducive environment, providing opportunities to develop them into moral, confident, capable and responsible citizens having courage and positive attitude to take up any challenge.

Participants will ask as many of the following questions as time allows:

1. How do astronauts breathe?

2. Is ISS like a house?

3. How do astronauts bathe?

4. Can you see cyclones or pollution there?

5. Do you see sunrise or sunset there?

6. Can you see a shooting star?

7. What does it feel like to be in outer space?

8. How long does your oxygen supply last during an eva?

9. Do you feel homesick?

10. How do you cope up with zero gravity?

11. What do you do when you get sick in space?

12. How do you go for a shave or a haircut?

13. What is the cuisine of food that you eat in space?

14. How doe it feel like to blast off in space?

15. What do you do for recreation?

16. Is the space Scary?

17. Have you kept a souvenir?

18. How many hours of training you have done at Zero gravity on earth before

getting in to the space?

19. It is _____ time in India what is the time there?

20. If you could bring only one luxury to space with you what would it be?

21. Can you see the solar and lunar eclipse there?

22. What sounds do you hear in your surroundings?

PLEASE CHECK THE FOLLOWING FOR MORE INFORMATION ON ARISS UPDATES:

Sign up for the SAREX maillist at

http://www.amsat.org/mailman/listinfo/sarex

Visit ARISS on Facebook. We can be found at Amateur Radio on the

International Space Station (ARISS).

To receive our Twitter updates, follow @ARISS_status

Next planned event(s):

1. Mill Springs Academy, Alpharetta, GA, direct via KK4OVR

   Wed, 04Sept2013, 14:15 UTC

2. Duluth Children's Museum, Duluth, MN, direct via W2GKP

   Sat, 07Sept2013, 15:03 UTC

ARISS is an international educational outreach program partnering the participating space agencies, NASA, Russian Space Agency, ESA, CNES, JAXA, and
CSA, with the AMSAT and IARU organizations from participating countries.

ARISS offers an opportunity for students to experience the excitement of Amateur Radio by talking directly with crewmembers on-board the International
Space Station. Teachers, parents and communities see, first hand, how Amateur
Radio and crewmembers on ISS can energize youngsters' interest in science, technology, and learning. Further information on the ARISS program is available
on the website http://www.ariss.org/ (graciously hosted by the Radio Amateurs
of Canada).

[ANS thanks David, AA4KN for the above information]

Satelite Shorts From All Over

Work All Ron, N8RO

Look for Ron, N8RO who is enjoying a long road trip that began on Friday Aug 30th. Ron is heading north through OK, KS, NE, SD, ND and SK. He will then head east on the Trans Canadian Highway to MB, ON, QC, NB and NS. From NS he will go to ME and MA and then work his way home to TX. While the trip is primarily a vacation, he will attempt to make satel-lite contacts, hopefully two a day, one morning and one evening, on SO-50 and FO-29 along the way. (Ron, N8RO on the Starcomm-bb)

[ANS thanks Ron, N8RO for the above information]

Russian Spacewalk Installs Commercial Camera Mounts

UrtheCast Corp. is pleased to announce that Roscosmos has successfully installed the Bi-axial Pointing Platform (BPP) on the Russian module of the International Space Station (ISS). The BPP is the structure to which the UrtheCast cameras will be attached.

The BPP was attached to the Zvezda module on the Russian segment of the ISS on Aug. 22, 2013 during spacewalk #35, conducted by Russian cosmonauts Fyodor Yurchikhin and Aleksandr Misurkin. The two UrtheCast cameras, one medium-resolution and one high-resolution, are scheduled to be launched to the ISS and installed in late 2013.

"We are thrilled with the successful installation of the BPP," President & COO Wade Larson stated. "Spacewalks are inherently risky, so having the mechanism that our cameras will be attached to successfully installed is a significant milestone."

This news story also has photos which can be viewed on-line at: http://www.spaceref.com/news/viewpr.html?pid=41428

[ANS thanks SpaceRef.com for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive addi-tional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students

enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Joe Spier, K6WAO
k6wao at amsat dot org